

# Methotrexate

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This sheet is about exposure to methotrexate in pregnancy and while breastfeeding. This information should not take the place of medical care and advice from your healthcare provider.

## ***What is methotrexate?***

Methotrexate is a medication that can stop the growth of cells and can interfere with the immune system (the system the body uses to fight off infections).

Methotrexate is prescribed to treat many conditions, including cancer and autoimmune conditions like rheumatoid arthritis <https://mothertobaby.org/fact-sheets/rheumatoid-arthritis/>, lupus <https://mothertobaby.org/fact-sheets/lupus-pregnancy/> and psoriasis <https://mothertobaby.org/fact-sheets/psoriasis-and-pregnancy/>. Methotrexate was used to induce abortions and is currently used to treat ectopic pregnancies (pregnancies that grow outside the uterus). Some brand names for methotrexate are: Otrexup®, Trexall®, Rheumatrex®, and Rasuvo®.

The product label for methotrexate recommends people who are pregnant not use this medication unless it is being used for cancer treatment. But, the benefit of using methotrexate to treat your medical condition may outweigh possible risks. Your healthcare providers can talk with you about using methotrexate and what treatment is best for you.

Methotrexate lowers the body's ability to use folic acid. During pregnancy, folic acid is important for development of the baby. If you have recently stopped taking methotrexate and are planning to get pregnant, talk with your healthcare provider about taking a folic acid supplement and what dose you should take.

## ***I take methotrexate. Can it make it harder for me to get pregnant?***

One study on infertility patients treated with methotrexate for ectopic pregnancy suggested a lower number of eggs available for fertilization. This finding was temporary. Other studies have not shown an increased chance of problems with fertility with the use of methotrexate.

## ***I am taking methotrexate, but I would like to stop taking it before becoming pregnant. How long does the drug stay in my body?***

People eliminate medication at different rates. In healthy adults, it takes up to 1 week, on average, for most of the methotrexate to be gone from the body. Certain medications might affect how long methotrexate clears from the body. In addition, people who have reduced kidney function or a condition that leads to extra body fluid might clear methotrexate more slowly from their body.

## ***How long do I need to wait to become pregnant after I stop taking methotrexate?***

Some healthcare providers have suggested waiting 1 to 3 months after stopping methotrexate to ensure the medication has been cleared from the body. The drug label recommends waiting 3 to 6 months after stopping the medication. However, there are no reports of babies being born with methotrexate-related birth defects when a female stops taking this medication before conception.

## ***Does taking methotrexate increase the chance for miscarriage?***

Miscarriage is common and can occur in any pregnancy for many different reasons. Small studies have reported an increased chance for miscarriage. Since methotrexate can be used to abort pregnancies or treat ectopic pregnancies, it seems likely that methotrexate use in early pregnancy would increase the chance of miscarriage.

***Does taking methotrexate increase the chance of birth defects?***

Every pregnancy starts out with a 3-5% chance of having a birth defect. This is called the background risk. Taking methotrexate in the first trimester could increase the chance for a specific pattern of birth defects. This includes malformations of the infant's head, face, limbs, and bones. For other birth defects, like heart defects and oral clefts, the evidence is not strong enough to show that methotrexate is the cause.

Limited evidence suggests that methotrexate-related birth defects can occur if a pregnancy is exposed to 10 mg or more of methotrexate per week between 6 and 8 weeks after conception (8 to 10 weeks after the first day of the last menstrual period).

One published review of studies reported no increase in miscarriage or birth defects in 101 people with rheumatoid arthritis who were exposed to 5 to 25mg a week of methotrexate in the first trimester. While reassuring, this does not mean there is no increased chance of miscarriage or birth defects when using low-dose methotrexate in the first trimester.

***Does taking methotrexate in pregnancy increase the chance of other pregnancy-related problems?***

Based on the studies reviewed, poor growth of the developing baby may be associated with methotrexate use during pregnancy.

***Does taking methotrexate in pregnancy affect future behavior or learning for the child?***

Based on the studies reviewed, developmental delay, learning problems, and intellectual disability have been described in children who were exposed to methotrexate during pregnancy.

***Breastfeeding while taking methotrexate:***

Methotrexate passes into breast milk in small amounts. The drug label and some healthcare providers do not recommend using methotrexate while breastfeeding and to not breastfeed for 1 week after taking the last dose of methotrexate.

Testing of breastmilk in people exposed to methotrexate doses up to 92 mg found low levels of methotrexate in the milk. As a result, some experts suggest that weekly low-dose methotrexate has a low chance of causing problems for the breastfed infant. If a person uses low-dose methotrexate treatment while breastfeeding, monitoring of the baby's blood count is suggested. Be sure to talk to your healthcare provider about all of your breastfeeding questions.

***If a male takes methotrexate, could it affect fertility (ability to get partner pregnant) or increase the chance of birth defects?***

The drug label states that males should use effective contraception while on methotrexate and for 3 months after taking the final dose. Methotrexate might cause an increased chance of infertility. Low sperm count has been seen in some males using methotrexate. Most of these males were using high doses of the medication, as well as other medications to treat cancer. Sperm levels returned to normal after the medication was stopped. Males who need to take methotrexate as part of cancer treatment may want to consider banking sperm before treatment.

There are no reports suggesting that males who use methotrexate at the time of conception are more likely to conceive a baby with a birth defect. Four studies noted no increase in birth defects in the children of 65 males who had taken methotrexate around the time of conception. In general, exposures that fathers or sperm donors have are unlikely to increase the risks to a pregnancy. For more information, please see the MotherToBaby fact sheet Paternal Exposures at <https://mothertobaby.org/fact-sheets/paternal-exposures-pregnancy/>.

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